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Chapter 3 INPUT/OUTPUT DEVICES

1) How many types of control statements?
(a) 2 (b) 3 (c) 4 (d) 5

2) Which of the following control structure is used for making decision?
(a) Sequence (b) Selection (c) Loop (d) None

3) Which of the following is used to control the flow of execution of a program?
(a) Control structure (b) Program (c) Module (d) All

4) Control structures
(a) Loop (b) Selection (c) Sequence (d) All

5) By using GOTO statement and loops, we can make the computer to perform tasks
(a) Repeatedly (b) Quickly (c) Efficiently (d) All

6) Which loops makes by WHILE…..WEND?
(a) Conditional loop (b) Controlled (c) Counter Loop (d) None

7) When we are not sure about the number of iteration we use
(a) GOTO (b) IF….THEN (c) IF…THEN..ELSE (d) WHILE…WEND

8) Which is the BASIC command to make decision
(a) READ (b) GOTO (c) IF (d) Loop

9) In BASIC the loop FOR I = 2 to 20 step 4 will be executed for
(a) 6 times (b) 4 times (c) 5 times (d) It is unending loop

10) Which of the following is unconditional control transfer statement?
(a) FOR (b) GOTO (c) IF (d) WHILE

11) Which one is a multiple branching statement?
(a) IF….. ELSE (b) GOTO (c) ON…..GOTO (d) ON ERROR GOTO

12) Loop inside loop is called
(a) FOR…NEXT Loop (b) WHILE..WEND Loop
(c) Nested Loop (d) Loop

13) Go to loop break through the key
(a) CTRL + C (b) CTRL + P (c) CTRL + B (d) CTRL + V

14) If nested loops have the same end point.
(a) A single NEXT statement for all loops (b) No NEXT statement is needed
(c) All loops must have their own next statement (d) Nested loop does not use

15) IF…..THEN are which kind of commands in BASIC
(a) Arithmetic (b) Decision (c) Input (d) Process

16) Which of the following BASIC statement is used to transfer the control to the specified line number of program if any error occurs during the execution of program?
(a) ON….. GOTO (b) ON ERROR GOTO (c) GOTO (d) None

17) Which of the following is not a logical operator?
(a) AND (b) OR (c) NEITHER (d) NOT

18) Types of transfer program are
(a) 2 (b) 4 (c) 6 (d) 8

19) Statement is uses to transfer the control of program without any condition is called
(a) GOTO (b) IF….THEN (c) FOR…NEXT (d) WHILE.WEND

20) In Which of the following control structure instructions are executed according to the increasing order of their line numbers?
(a) Loop (b) Selection (c) Sequence (d) All

21) The value after the STEP parameter in the FOR…..NEXT statement may be
(a) Positive (b) Negative (c) Both a & b (d) None

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22) Which among the following is the last statement in BASIC program?
(a) QUIT (b) SYSTEM (c) END (d) BYE

23) Which of the following cannot be used to exit from an error handling routine?
(a) RESUME (b) RESUME NEXT (c) END (d) STOP

24) There are three logical operators
(a) Yes or Not (b) And or not (c) Now or and (d) None

25) Which of the following causes a move of the control from one part of the program to the other without any condition?
(a) Conditional transfer of control (b) Un conditional transfer of control
(c) Mix transfer of control (d) Both a & b

26) Which of the following BASIC statement contains one condition and two branches?
(a) IF…..THEN (b) IF..THEN..ELSE (c) GOTO (d) None

27) Which of the following BASIC statement is a conditional loop statement?
(a) FOR….NEXT (b) ON….GOTO (c) GOTO (d) WHILE…WEND

28) Which of the following statement is avoided in the programming?
(a) GOTO (b) ON…. GOTO (c) ON ERROR GOTO (d) IF…THEN

29) How many maximum transfer points can be specified with ON…GOTO statement?
(a) 240 (b) 245 (c) 250 (d) 255

30) Which of the following statement is used for error trapping purpose in GW-BASIC?
(a) GOTO statement (b) FOR….NEXT
(c) WHILE….WEND (d) ON ERROR GOTO

31) How many statements can be placed between FOR and NEXT statement in BASIC?
(a) None (b) One (c) Two (d) As many as required

32) Which of the following word specifies the end of WHILE loop?
(a) WEND (b) NEXT (c) RETURN (d) END

33) Which of the following BASIC loop statement is used to execute a set of statements for a specified number of times?
(a) FOR….NEXT (b) ON….GOTO (c) GOTO (d) WHILE…WEND

34) To specify two different alternatives with if statement the key word is used
(a) WHILE (b) WEND (c) IF (d) ELSE

35) The ERR and ERL are words each other
(a) Opposite (b) Same (c) Zero (d) Cancelled

36) In GW-BASIC every error is assigned
(a) Error Code (b) Name (c) Syntax (d) None

37) Which of the following is a special variable used assign an error code on occurrence of an error in BASIC?
(a) ERL (b) ERC (c) ERR (d) REN

38) Which of the following is a special variable used to assign the error line number where an error occurs?
(a) ERL (b) ERC (c) ERR (d) REN

39) In BASIC statement FOR A = 1 to 20 , A is known as
(a) Subscript (b) Pointer (c) Counter (d) Variable

40) In BASIC , if a loop A is lies entirely within loop B, loops A and B are called
(a) Inner loop (b) Outer loop (c) Nested loop (d) None

41) Which of the following resumes the execution at the specified line number?
(a) RESUME (b) RESUME NEXT (c) Resume line no (d) STOP

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42) How many types of loop statements in BASIC?
(a) 2 (b) 3 (c) 4 (d) 5

43) FOR.... NEXT is used to implement
(a) Iteration (b) Selection (c) Sequence (d) All

44) Which of the following keyword is not related to ON ERROR GOTO statement?
(a) ERR (b) ERL (c) STOP (d) RESUME

45) Which of the following is an expression that evaluates to true or false?
(a) Loop (b) Selection (c) Sequence (d) Condition

46) Which of the following is used to represent the true condition?
(a) 0 (b) 1 (c) 2 (d) 3

47) GW-BASIC, each possible error has been assigned
(a) A unique code (b) Two codes (c) Various codes (d) Both 'a' and 'b'

48) Reserved words are
(a) ERR (b) ERL (c) ERP (d) Both 'a' and 'b'

49) The while loop keeps repeating an action until an associated condition becomes
(a) True (b) False (c) Error free (d) Both 'b' and 'c'

50) Which of the following can not be used to exit from an error handling routine
(a) RESUME (b) RESUME NEXT (c) END (d) STOP

ANSWER KEY

1	C	11	C	21	C	31	D	41	C
2	B	12	C	22	C	32	A	42	A
3	A	13	A	23	D	33	A	43	A
4	D	14	C	24	B	34	D	44	C
5	D	15	B	25	B	35	A	45	B
6	A	16	B	26	B	36	A	46	B
7	D	17	C	27	D	37	C	47	S
8	C	18	A	28	A	38	A	48	D
9	C	19	A	29	D	39	C	49	B
10	B	20	C	30	D	40	C	50	B

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SHORT QUESTIONS

Q1: Define control structure?

CONTROL STRUCTURE

The statement that are used to control the flow of execution in a program are called control structure.

Q2: How many types of control structure list down its name?

TYPES OF CONTROL STRUCTURE

There are three types of control structure. These are

1. Sequence
2. Selection
3. loop

Q3: What do you mean by transfer of control?

TRANSFER OF CONTROL

The method to transfer execution control from one part of program to another is known as transfer of control. There are two types of transfer of control.

1. Conditional
2. unconditional

Q4: What is the GOTO statement?

GOTO STATEMENT

GOTO statement is used to unconditionally transfer the control from a program line to a specified line number during the execution of the program. It is an unconditional statement.

Syntax

GOTO Ln

Q5: What is ON……GOTO statement?

ON GOTO STATEMENT

The ON……GOTO is a multiple branching statement. Unlike GOTO statement which has only one transfer point, the ON…..GOTO statement can have more than one transfer points. The ON……GOTO statement is used to conditionally transfer the control to one of the branch in the program.

Q6: What is ON ERROR GOTO statement?

ON ERROR GOTO STATEMENT

This statement is used to transfer the control to a specified line number of program if any error occurs during the execution of program.

Syntax

ON ERROR GOTO (LINE NO)

Q7: What is the purpose of ERR and ERL variables?

ERR & ERL VARIABLE

In BASIC, each possible error has been assigned a unique code. These are special variables ERR and ERL that are used for this purpose. These are reserved words. The purpose of these variables are

- The error code is assigned to variable ERR when an error occurs.
- The line number where the error occurs is assigned to variable ERL

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Q8: What is Resume statement?

RESUME STATEMENT

This statement returns execution control to the statement that caused the error and tries to execute it again.

Syntax

Resume
Resume Next
Resume line no

Q9: What is IF……THEN statement?

IF THEN STATEMENBT

The IF……THEN is decision making statement. It is used to execute or to ignore certain statements of the program on conditional basis. This statement tests the given condition. If the given condition is true then statements following the IF……THEN structure is executed otherwise it is ignored.

Syntax

If expression Then Statement (s)

Q10: What is IF……THEN-ELSE statements?

IF THEB ELSE STATEMENT

The IF…..THEN-ELSE structure is another form of IF…..THEN statement. This structure is used for making two-way decisions. In IF….THEN-ELSE structure, one action is performed if test condition is true otherwise another action is performed.

The general syntax of the IF……THEN-ELSE structure is

Syntax

IF (condition)THEN (statement-1)ELSE (statement-2)

Q11: Define loop.

LOOP

The process of executing a set of statements repeatedly for a specified number of times or until some given condition remains true is called loop. There is two types of loop

1. FOR…..NEXT LOOP
2. WHILE ….WEND LOOP

Q12: What is For…Next loop?

FOR….NEXT LOOP

This loop is used to execute a set of statements for a specified number of times. It is also called a counter loop.

SYNTAX

FOR variable = x to y [STEP z]
.
. statements
.
NEXT [Variables]

Q13: What is While…Wend loop?

WHIE….WEND LOOP

WHILE loop is a conditional loop. This loop structure is used to executed a set of statements as long as the given condition remains true. It is also called conditional loop.

SYNTAX

WHILE expression
Statements
WEND

Where

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Q14: What is nested loop?

NESTED LOOP

A loop inside another loop is called nested loop.

Q15: What is control variable?

A variable, which is used in the loop structure to control the number of repetition of loop is known as loop control variable. The loop control variable is always initialized outside the body of loop.

Q16: What is the outer and inner loop used in nested loop?

The loop that contains another loop inside its body is called outer loop. The loop that is inside the outer loop is called the inner loop.

Q17: What is the difference between IF THEN & On GOTO statement

DIFFERENCE BETWEEN IF THEN & ON GOTO STATEMENT

IF THEN	ON GOTO
1. It is conditional transfer of control statement.	1. It is conditional with multiple branching statement.
2. It will determine whether the condition is true or false.	2. Variable will transfer control among various choice.
3. Else part of the statement is optional	3. No optional part will be used in this statement.
4. If statement can use relational expression or logical expression.	4. No relational or logical expression in it.

Q18: What is the difference between GOTO & On GOTO Statement

DIFFERENCE BETWEEN GOTO & ON GOTO STATEMENT

GOTO	ON GOTO
1. GOTO statement is a single branching statement.	1. ON GOTO is multiple branching statement.
2. It is unconditional transfer of control.	2. It is conditional transfer of control.
3. **Syntax** Line no. GOTO Line no	3. **Syntax** Line No ON variable GOTO statement no1, no2

LONG QUESTIONS

Q1: What is GOTO statement? Explain with example.

GOTO statement is used to unconditionally transfer the control from a program line to a specified line number during the execution of the program. It is an unconditional statement.

SYNTAX

Line # GOTO Ln

Where

Ln	Specifies the line number in the program to which the control is to be transferred during program execution

The program execution control jumps to the specified line number without testing any condition. The GOTO statement is not used in modern style of programming.

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EXAMPLE

```
10 CLS
20 A = 10 : B = 5
30 GOTO 60
40 Print "Sum = "; A + B
50 Print "Average = "; ( A + B ) /2
60 Print "Product = "; A * B
70 End
```

1. The above program is executed in the following order
2. The line number 10 is executed first and clear the screen
3. The control then shifts to line number 20. the value to variable A and B are assigned.
4. The control shifts to line 30. This line contains the GOTO statement that shifts the control to line number 60
5. At line number 60, PRINT statement will be executed and the product of two values is calculated and printed.
6. The control then moves to line number 70 where END statement terminates the execution of program.

It must be noted that statement at line number 40 and 50 are skipped without execution.

Q2: What is ON……GOTO statement? Explain with example.

ON ……GOTO Statement

The ON….GOTO is a multiple branching statement. Unlike GOTO statement which has only one transfer point, the ON……..GOTO statement can have more than one transfer points. The ON……GOTO statement is used to conditionally transfer the control to one of the branch in the program.

SYNTAX

ON variable GOTO n1, n2, n3……

VARIABLES

Represents an integer type variable that returns an integer value. The range of value of variable is from 0 to 255

n1, n2, n3

Represent the valid line number in the program where the control will be transferred. If the value of variable is 1, the control will be transferred to line number n1, similarly, if the value of variable is 2, the control will be transferred to line number n2 and son on. If the value of variable is less or more than the line numbers following the GOTO statement in the program then an "OUT OF RANGE" error message will be displayed.

EXAMPLE:

```
10 CLS
20 Input "Enter the 1st Number"; A
30 Input "Enter the 2nd Number"; B
40 Print "1-ADD 2-Substract 3-Multiply 4-Divided"
50 Input "Enter the choice"; N
60 ON N GOTO 70, 80, 90, 100
70 Print "Sum = "; A + B
80 Print "Subtract = "; A – B
90 Print "Multiply = "; A * B
100 Print "Division = "; A / B
```

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```
110m End
Ok
RUN
Enter the 1st Number 5
Enter the 2nd Number 6
1-ADD 2-Substract 3-Multiply 4-Divided
Enter the choice 3
Multiply = 30
```

Q3: Describe the ON ERROR GOTO statement with example.

ON ERROR GOTO Statement

This statement is used to transfer the control to a specified line number of program if any error occurs during the execution of the program. Its syntax is

SYNTAX

ON ERROR GOTO (LINE NO)

Where line number specifies the valid line number in the program where you want to transfer the control.

The error handlers in GW-BASIC are activated when ON ERROR GOTO statement is executed. This statement should be at the beginning of the program so that errors occurred anywhere in the program can be trapped.

When an error occurs during the program execution, the control immediately transfers to the specified line number.

ERR and ERL Variables

In GW-BASIC each possible error has been assigned a unique code. When an error occurs its code is assigned to a special variable, name ERR and the line number where the error was encountered is assigned to another special variable, named ERL. The ERR and ERL are reserved words.

EXAMPLE

```
10 CLS
20 ON ERROR GOTO 100
30 Let X = 0
40 Print 30 / X
40 End
100 Print "Error code"; ERR
110 Print "Error Line NO"; ERL
120 End
```

Q4: Describe the IF…THE statement with example?

IF……THEN Statement

The IF…..THEN statement is decision making statement. It is used to execute or to ignore certain statements of the program on conditional basis. This statement tests the given condition. If the given condition is true then statements following the IF…..THEN structure is executed otherwise it is ignored.

The general syntax of IF….THEN structure is

SYNTAX

IF expressions THEN statements

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Where

Expression	Specifies the relational condition. If it is true, the statement following the keyword THEN is executed otherwise it is ignored.
Statements	It is a BASIC statement that is executed if given condition is true. Usually the GOTO statement is used to transfer the control conditionally to the other part of the program if condition is true. You can also given simply the line number instead of GOTO statement where you want to transfer the control. Multiple statements can be given after keyword THEN separated by colon.

EXAMPLE:

```
10 CLS
20 C = 0
30 Print "I Love Pakistan"
40 C = C + 1
50 If C < = 5 THEN GOTO 30
60 END
```

Q5: Describe the IF…THE-ELSE statement with example?

IF…THE-ELSE statement

The IF……THEN statement structure is another form of IF….THEN statement. This structure is used for making two-way decisions. In IF ….THEN……ELSE structure, one action is performed if test condition is true otherwise another action is performed.

SYNTAX

IF (condition) THEN (statement-1) ELSE (statement-2)

If the given condition is true, then the statement-1 is executed that comes after the keyword THEN. If condition is false, the statement-2 is executed that comes after the keyword ELSE.

The IF……THEN….ELSE is just one statement but has two parts. The ELSE part of the statement is optional. If it is omitted then it becomes the simple IF…..THEN statement.

EXAMPLE:

```
10 CLS
20 A = 70
30 B = 50
40 If A > B THEN Print "A is greater" Else "B is greater"
50 END
```

Q6: Describe the Nested loop with example?

A loop structure inside the body of another structure is called nested loop.

The loop that contains another loop inside its body is called outer loop. The loop that is inside the outer loop is called the inner loop.

EXAMPLE:

```
10 CLS
20 FOR C = 1 TO 4
30 PRINT "Number:"; C
40 FOR I = I TO 2
50 PRINT "I Love Pakistan"
60 NEXT I
70 NEXT C
80 END
```

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In the above program, the FOR loop of line 40 to 60 (inner loop) is completely inside another FOR loop of line 20 to 70 (outer loop). The outer loop is executed four times. Each time the outer loop is executed, the inner loop (nested loop) is executed two times.

OUTPUT

```
Number:1
I Love Pakistan
I Love Pakistan
Number:2
I Love Pakistan
I Love Pakistan
Number:3
I Love Pakistan
I Love Pakistan
Number:4
I Love Pakistan
I Love Pakistan
```

EXERCISE

Q1: Fill in the blanks.

(i) GOTO
(ii) ONE
(iii) Condition
(iv) 255
(v) Enables
(vi) Unique
(vii) ERR
(viii) ERL
(ix) Error handling
x) Selection

Q2: Choose the correct answer.

(i) C
(ii) D
(iii) C
(iv) C
(v) A

Q3: Write T for True and F for False statement.

(i) T
(ii) F
(iii) F
(iv) T
(v) F
(vi) F
(vii) T
(viii) F
(ix) T
(X) F

Q4: Define control structure. How many control structure are available in BASIC, discuss briefly.

The statement that are used to control the flow of execution in a program are called control structure.

There are three types of control structure. These are

1. Sequence
2. Selection
3. loop

1- SEQUENCE

In a sequence structure, statements are executed according to the increasing order of their line numbers. So the statements of smaller line numbers are always executed first, then instructions of greater line number. For example

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```
10 CLS
20 Let A = 7
30 Let B = 9
40 C = A + B
50 Print C
60 End
```

In the above structure, the execution control will flow from statement line # 10 to statement line # 60. all statements will be executed one after the other.

2- SELECTION

The selection structure is used for making decision. The selection structure is also known as decision structure. It is used for selecting the proper path out of the two alternative paths in the program. The instructions of the program are written in a sequence but selection statements are used for making decisions.

In BASIC the most important selection statements are

- IF ..... THEN statements
- IF..... THEN ELSE statements

3- LOOP

Loop structure is used to execute a set of instructions repeatedly up to fixed number of times or as long as the given condition remains true. BASIC language provides the following loop structure.

1. WHILE ..... WEND LOOP
2. FOR..... NEXT LOOP

Q5: Define nested loop. Write the syntax of FOR.....NEXT and WHILE ..... WEND loop and explain with examples.

Nested Loop

A loop structure inside the body of another loop structure is called nested loop.

FOR.....NEXT Loop

This loop is used to execute a set of statements for a specified number of times. It is also called a counter loop.

SYNTAX

```
FOR variable = x  to y [ STEP z ]
.
.       statements
.
NEXT [ Variables ]
```

Where

VARIABLES

Specifies the loop control variable of numeric data type. The number of repetitions of loop is controlled by this variable.

X

Specifies the initial value of the control variable. It may be a numeric constant or variable.

Y

Specifies the final value for the control variable. It may be a numeric constant or variable.

Z

Specifies the increment or decrement value of the control variable after each repetition. Its use is optional. If it is omitted then value of control variable is incremented by 1 after each repetition.

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NEXT

Specifies the end of loop or last statement of FOR loop. The use of variable after the NEXT is optional. When control reaches at NEXT statement, the value of control variable is incremented or decremented

Example:

```
10 CLS
20 For I = 1o 5
30 Print I
40 Next I
5 End
OK
RUN
1   <-------- OUT PUT
2
3
4
5
```

WHILE.....WEND Loop

WHILE loop is a conditional loop. This loop structure is used to executed a set of statements as long as the given condition remains true.

This loop is used when the programmer does not know in advance the number of repetition of loop. The looping is controlled by the user.

SYNTAX

```
WHILE expression
    Statements
WEND
```

Where

Expression	Specifies the given condition. Each time it is tested, if it is true, the statements between while and wend are executed. If this condition becomes false at any stage, the execution of loop is terminated and control shifts to the statements that comes immediately after WEND.
Statements	Specifies the set of statements that you want to execute repeatedly. It is the body of the loop.
WEND	Specifies the end of WHILE loop or last statement of loop. When this statement occurs, control transfer back to the condition or beginning of loop.

Example:

```
10 CLS
20 Let I =1
30 While I < 3
40 Print I
50 I = I + 1
60 WEND
70 End
OK
```

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RUN
1 ← OUT PUT
2
3

Q6: What does it mean by transfer of control? Briefly describe conditional and unconditional transfer of control in BASIC.

Transfer of control

The mechanism to transfer execution control from one part of program to another is known as transfer of control.

In GW-BASIC, program execution control can be transferred from one part of the program to another conditionally or unconditionally. Therefore, transfer of control can be divided into two types.

1. **Unconditional transfer of control**
2. **Conditional transfer of control**

1. **Unconditional Transfer of control**

This type of transfer of control shifts the program execution control to a specified statement number by skipping one or more statement line numbers without testing any condition.

In GW-BASIC GOTO statement is used to implement the unconditional transfer of control.

2. **Conditional Transfer of control**

This type of transfer of control shifts the program execution control to a specified statement number by skipping one or more statement lines depending on a given condition.

In GW-BASIC there are many statements that can be used to transfer the control conditionally from one part of program to the other. The example of these statements are

(i) ON ……GOTO Statements
(ii) ON ERROR GOTO Statements

Q7: Differentiate WHILE……WEND and FOR……NEXT loop. Which one is better in a situation where you do not know the number of iteration prior to the execution of the loop?

WHILE…….WEND	FOR…… NEXT
• WHILE…….WEND loop is used to extend the statements till a specific condition is satisfied. In this loop the number of repetition is not predefined. It depends upon the given condition.	• FOR…….NEXT loop is used to execute a set of statements for a specific number of times.
• WHILE……WEND loop is used for controlled loop.	• FOR……..NEXT loop is used for counter loop.
• WHILE……WEND loop is used when the number of iteration is not known in advance to the programmer.	• FOR……NEXT loop is used when the number of iteration is known in advance to the programmer.

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Q8: Write a program to calculate the area of triangle. The program should get the value for base and altitude of the triangle from the user, and display for result.

```
10 Input "Enter the base"; B
20 Input "Enter the altitude"; A
30 Area = 1 / 2 * B * A
40 Print "Area of Triangle is", Area
50 END
OK
Enter the base ? 10
Enter the altitude ? 30
Area of Triangle is 150
```

← OUT PUT

Q9: Write a program to calculate the area and circumference of a circle. The program should get the radius of the circle from the user and display result.

```
10 Input "Enter the radius of the circle"; R
20 Area = 3.14 * R ^ 2
30 CIR = 2 * 3.14 * R
40 Print "Area of circle is", Area
50 Print "Circumference of a circle is"; CIR
60 END
OK
Enter the radius of the circle ?10
Area of circle is 314
Circumference of a circle is 62.80001
```

← OUT PUT

10: Write a program to print first ten odd numbers using WHILE …….. WEND loop.

```
10 CLS
20  Let I = 1
30  While I < 10
40  Print I
50  I = I + 2
60 Wend
70 End
OK
Run
1
3
5
7
9
```

← OUT PUT

Q11: Write a program to print the sum of square of first five even numbers using FOR……..NEXT loop.

```
10 CLS
20  For I = 2 to 10 step 2
30  Sum = Sum + ( I ^ 2 )
40  Next I
50  Print "Square of Even numbers is"; Sum
60 End
Ok
Run
Square of Even numbers is 55
```

← OUT PUT

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Q12: Write a program to find the larger of two numbers. The program should get the number from the user.

```
10 CLS
20 Input "Enter the First Number" , a
30 Input "Enter the Second Number" , b
40 If a > b then print "Greater No is"; a : end
50 Print "Greater No is"; b
60 End
Ok
Run
Enter the First Number 7        <-------- OUT PUT
Enter the Second Number 3
Greater No is 7
```

Q13: Write a program to print the table of a given number. The program should get the number from the user.

```
10 CLS
20  Input "Enter Table Number", T
30  For I = 1 to 10
40  Print T , "*", I ,"=", T * I
50  Next I
60 End
Run
Enter Table Number 5
5 * 1 = 5
5 * 2 = 10
5 * 3 = 15
5 * 4 = 20
5 * 5 = 25        <-------- OUT PUT
5 * 6 = 30
5 * 7 = 35
5 * 8 = 40
5 * 9 = 45
5 * 5 = 50
```

Q14: Write a program that should accept obtained marks of a student in an examination. It should then calculate the percentage and assign a grade to the student.

```
10 Input "Enter the Marks", M
20 P = M / 850 * 100
30 IF P > = 80 then Print " A1" : End Else goto 40
40 IF P > = 70 and P <80 then Print " A" : End Else goto 50
50 IF P > = 60 and P <70 then Print " B" : End Else goto 60
60 IF P > = 50 and P <60 then Print " C" : End Else goto 70
70 IF P > = 40 and P <50 then Print " D" : End Else goto 80
80 IF P < 40 then Print " Fail"
90 End
```

Output

```
Enter the Marks 800
A1
```

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